REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed August 30, 2004. Reconsideration and allowance of the application and pending claims are respectfully requested.

I.   Claim Objections

Claim 32 has been objected under 37 CFR 1.75(c) for being of improper dependent form for failing to further limit the subject matter of a previous claim. In response to the objection, Applicant has amended claim 32 to depend from claim 31. In view of that amendment, Applicant respectfully submits that claim 32 is not objectionable and respectfully requests that the objection be withdrawn.

II.   Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claims 1, 6-8, 15-17, 21-22, 28-31, and 34 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

In response to the rejections, Applicant has amended the claims in the manner shown above to remove any indefiniteness. In view of those amendments, it is respectfully asserted that Applicant's claims define the invention in the manner required by 35 U.S.C. § 112. Accordingly, Applicant respectfully requests that the rejections to these claims be withdrawn.

In specific regard to the rejection of claims 1, 16, 22, and 31 for the alleged uncertainty of whom or what is performing the recited steps, Applicant notes that omission of such information does not render the claims indefinite but instead just renders the claims more broad. As long as the practiced method is sufficiently clear,

Applicant should not be required to identify which components perform the method. The choice as to the scope of the claims should be left to the Applicant.

Regarding the rejection of claim 17, Applicant notes that the meaning of "a same threshold value" is clear in view of Applicant's specification, which is to be used to interpret the meaning of the claims. Applicant should not be required to identify the type of action that is triggered. Again, the choice as to the scope of the claims should be left to the Applicant.

III.   Claim Rejections - 35 U.S.C. § 101

Claims 1-14, 16-20, and 22-26 have been rejected under 35 U.S.C. § 101 for being directed to non-statutory subject matter. In response to the rejection, Applicant has amended claims 1, 16, and 22 to recite "computer-implemented" methods. In view of those amendments, Applicant respectfully submits that claims 1-14, 16-20, and 22-26 define the invention in the manner required by 35 U.S.C. § 101. Accordingly, Applicant respectfully requests that the rejections to these claims be withdrawn.

IV.   Claim Rejections - 35 U.S.C. § 103(a)

A.   Rejection of Claims

Claims 1-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuo, et al. ("Matsuo," U.S. Pat. No. 6,775,729). Applicant respectfully traverses this rejection.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would

-11-

lead that individual to the claimed invention. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). As is provided in the Manual of Patent Examining Procedure (MPEP) section 2143:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, the Matsuo reference fails to teach or suggest all of the claim limitations, and further fails to suggest the modifications described in the Office Action. Applicant discusses the Matsuo disclosure and Applicant's claims in the following.

A.   The Matsuo Disclosure

Matsuo discloses a peripheral device and a peripheral device control method and system. Matsuo, column 1, lines 40-44. The peripheral device includes device control programs for maintaining the functions of a plurality of print engines of the device, and control means for selecting and executing a device control program in the event that an interruption job is input during processing of another job. Matsuo, column 1, lines 47-56.

The peripheral device (i.e., multi-function peripheral (MFP)) includes a controller 101 that controls operation of the device. Matsuo, column 6, lines 33-36.

The hardware configuration for the controller is shown in FIG. 3 (Matsuo, column 8, lines 6-7), and the software configuration for the controller is shown in FIG. 4 (Matsuo, column 8, lines 52-53). FIG. 5 is a diagram of an additional control program of the controller (Matsuo, column 11, lines 4-5). As is indicated in FIG. 5, the control program includes "print job managers" 501-509 and 513. Matsuo, column 11, lines 6-10.

As is identified in the Office Action, the print job managers allocate job IDs to print jobs that are received by the print job manager. Matsuo, column 19, lines 52-55. The print job manager correlates the job ID with the print job in a job table stored on the peripheral device. Matsuo, column 19, lines 39-42.

B.   Applicant's Claims

Applicant's claims describe methods and apparatus for correlating pre-print and post-print information. The various claim groups are discussed separately in the following.

1.   Claims 1-15

Independent claim 1 provides as follows (emphasis added):

> 1.   A computer-implemented method, comprising:
> *associating a print job with a unique job identifier prior to sending the job to a printing device*;
> *obtaining pre-print information about the print job*;
> obtaining post-print information about the print job; and
> *correlating the pre-print information and the post-print information using the unique job identifier*.

Matsuo fails to teach or suggest several of the limitations of claim 1. As a first matter, Applicant notes that Matsuo does not teach or suggest "associating a print job with a unique job identifier prior to sending the job to a printing device", as is required by claim 1. As is explicitly identified in the Office Action and described above, Matsuo instead discloses that the print job manager that executes on Matsuo's peripheral device allocates job IDs to print jobs. Because the print job managers allocate the job IDs and because those managers execute on the peripheral device, Matsuo fails to disclose associating a print job with a unique job identifier "prior to sending the job to a printing device".

Applicant notes that the above-described distinction is significant. Specifically, association of the print job with a unique job identifier prior to sending the job enables Applicant's unique correlation of pre-print and post-print information. Without allocating the job identifier before the job is sent to the printing device, that information cannot be controlled by a separate device (e.g., Applicant's peripheral server 104, Fig. 1) in the manner described by Applicant. As is explained in the Background Section of Applicant's specification, lack of such control creates several problems including difficulties in obtaining the information, increased network traffic, and unnecessary overhead. Such problems, however, can be avoided with an appropriate agent (e.g., Applicant's job information collection and correlation module 210, Fig. 2) is used to collect and correlate that information.

Applicant further notes that Matsuo provides no suggestion to associating a print job with a unique job identifier on a device other than the peripheral device itself. In fact, Matsuo's teaching of providing that functionality on the peripheral device would motivate a person having ordinary skill in the art away from placing that functionality elsewhere (such as a peripheral server). In other words, Matsuo's

-14-

express teaching of assigning an job ID to the print job on the peripheral device *teaches away* from associating a unique job identifier on another device.

Applicant further notes that Matsuo does not teach or suggest "obtaining pre-print information about the print job" within the meaning of Applicant's disclosure. In relation to this limitation, the Office Action identifies Matsuo's column 51, lines 55-58, which provides: "At the time of issuing a job, the data to be printed or downloaded is specified along with the multiple attribute values to be set within the job script." Applicant notes that this vague reference to "multiple attribute values" does not anticipate or render obvious Applicant's claimed "obtaining pre-print information".

As a further matter, Applicant asserts that, contrary to that stated in the Office Action, Matsuo does not render obvious "correlating the pre-print information and the post-print information using the unique job identifier", as is also required by claim 1. As is noted above, Matsuo does not teach or suggest "associating a print job with a unique job identifier prior to sending the job to a printing device". It therefore follows that Matsuo does not teach or suggest correlating information using such a job identifier. Furthermore, because Matsuo does not teach or suggest associating a print job with a unique job identifier prior to sending the job to a printing device, it also follows that the "correlating" that occurs on Matsuo's peripheral device (see column 50, lines 42-48) is not the same as that described in claim 1.

In view of the above, Matsuo does not render independent claim 1, or is dependent claims, obvious. Applicant further notes that several of the dependent claims contain limitations that are likewise not taught or suggested by Matsuo. Indeed, as the following discussion elucidates, Matsuo fails to account for most of the limitations contained in Applicant's dependent claims.

With regard to claim 2, Matsuo fails to teach or suggest receiving pre-print information from "an operating system". In fact, Matsuo does not even contemplate an operating system comprising such pre-print information.

Regarding claim 5, Matsuo fails to teach or suggest obtaining post-print information using "SNMP Gets". There is simply nothing in the Matsuo disclosure that would render this limitation obvious.

With respect to claim 7, Matsuo fails to teach or suggest "sending" the unique identifier, the pre-print information, and the post-print information to a job table on a peripheral. Again, the "identifier" is generated by the peripheral. Therefore, it is not "sent" to the peripheral.

In regard to claims 9-11, Matsuo fails to teach or suggest "transferring the pre-print information and the post-print information to a management server upon realization of a threshold" or particular types of thresholds. Indeed, Matsuo says nothing whatsoever of thresholds.

Regarding claims 12-13, Matsuo fails to teach or suggest "polling a peripheral to determine if the peripheral has finished with the print job" or "varying the rate of polling". Indeed, Matsuo says nothing whatsoever of polling a peripheral.

Respecting claims 12-13, Matsuo fails to teach or suggest "requesting the peripheral to send a trap with print information". Indeed, Matsuo says nothing whatsoever of sending a trap to a peripheral.

2. Claims 16-21

With reference next to independent claim 16, Applicant claims (emphasis added):

> 16.   A computer-implemented method of capturing print job information, comprising:
>
> *configuring a port monitor with a management server*;
>
> *associating a print job received by a port monitor with a unique job identifier prior to sending the job to a printer*;
>
> sending the print job to the printer;
>
> obtaining pre-print information about the print job;
>
> obtaining post-print information about the print job; and
>
> *correlating the pre-print information and the post-print information using the unique job identifier*.

As a first matter, Applicant notes that Matsuo fails to teach or suggest "associating a print job received by a port monitor with a unique job identifier prior to sending the job to a printer" or "correlating the pre-print information and the post-print information using the unique job identifier" for the same reasons discussed above in relation to claim 1. Claim 16, and its dependent claims, are allowable over Matsuo for at least these reasons.

As a further matter, Matsuo fails to teach or suggest "configuring a port monitor with a management server", as is also provided in claim 16. Contrary to that alleged in the Office Action, Matsuo's column 59, lines 24-27, do not teach any such configuring.

For at least the foregoing reasons, independent claim 16, and its dependent claims, are allowable over Matsuo.

With specific regard to dependent claim 17, Matsuo does not teach or suggest "configuring a plurality of port monitors to have a same threshold value". As is noted above, Matsuo is silent as to thresholds.

Regarding claims 19 and 20, Matsuo fails to teach or suggest "polling the printer" or "varying the rate of polling" for reasons described above in relation to claims 12-13.

3.   Claims 22-26

With reference next to independent claim 22, Applicant claims (emphasis added):

> 22.   A computer-implemented method, comprising:
> receiving a print job with a port monitor;
> ***wrapping the print job with a unique job identifier to form a wrapped print job***;
> ***sending the wrapped print job to a printer***;
> ***obtaining pre-print information associated with the print job from an operating system***;
> ***polling the printer to determine if the print job is done***;
> obtaining post-print information from the printer; and
> correlating the pre-print and post-print information to produce correlated information.

In regard to claim 22, Matsuo fails to teach or suggest "wrapping the print job with a unique job identifier to form a wrapped print job" or "sending the wrapped print job to a printer" given that, as is noted above, Matsuo does not teach associating a unique job identifier to a print job before sending the job to a printing device. Furthermore, Matsuo fails to teach or suggest "obtaining pre-print information

-18-

associated with the print job from an operating system" or "polling the printer to determine if the print job is done" for reasons discussed above. Claim 22, and its dependent claims, are allowable over Matsuo for at least these reasons.

With specific regard to dependent claim 23, Matsuo fails to teach or suggest "polling at a varying rate" for reasons discussed above.

Regarding claims 24-26, Matsuo fails to teach or suggest triggering a transfer "upon reaching a threshold" or specific thresholds recited by Applicant for reasons discussed above.

4. Claims 27-30

With reference next to independent claim 27, Applicant claims (emphasis added):

> 27. A *port monitor that operates on a peripheral server*, comprising:
> a *job information collection module configured to assign unique job identifiers to print jobs* and *to collect and correlate pre-print and post-print information*, the pre-print information being obtained from a host operating system and the post-print information being obtained from a peripheral device that is configured to print jobs.

Regarding claim 27, Applicant notes that Matsuo does not teach or suggest a port monitor that operates on a server (i.e., a device separate from the peripheral device) that includes a module that is "configured to assign unique job identifiers to print jobs". Again, Matsuo teaches assigning "identifiers" using a print job manager on the peripheral device. Furthermore, Matsuo fails to teach or suggest that such a module can "collect and correlate pre-print and post print information". As is identified in the

Office Action, any collection or correlation of such information is performed on the peripheral device. Applicant therefore submits that claim 27 and its dependent claims are allowable over Matsuo.

With specific regard to dependent claim 28, Matsuo fails to teach or suggest a "data store" provided in a port monitor of a server that stores pre-print and post-print information.

Regarding claim 30, Matsuo fails to teach or suggest an "SNMP module" for reasons described above.

5. Claims 31-34

Claim 31 provides (emphasis added):

31.   At least one computer-readable media having computer readable instructions thereon, which when executed by a computer, cause the computer to:
receive a print job;
wrap the print job with a unique job identifier to create a wrapped print job;
send the wrapped print job to a printer;
obtain pre-print information from an operating system;
obtain post-print information from the printer; and
correlate the pre-print information and the post-print information associated with the unique job identifier.

In regard to claim 31, Matsuo fails to teach or suggest instructions that cause a computer to "wrap the print job with a unique job identifier to create a wrapped print job" or "send the wrapped print job to a printer" for reasons described above. Moreover, Matsuo fails to teach or suggest instructions that cause a computer to

"correlate the pre-print information and the post-print information associated with the unique job identifier" for reasons discussed in the foregoing.

Regarding claims 32-33, Matsuo fails to teach or suggest causing a computer to "poll to determine if the printer has finished with the print job" or "vary a rate of polling" for reasons described above.

In summary, it is Applicant's position that Applicant's claims are not rendered obvious by the Matsuo disclosure. Therefore, it is respectfully submitted that each of these claims is patentable over Matsuo and that the rejection of these claims should be withdrawn.

IV.   Canceled Claims

As identified above, claims 15, 21, and 34 have been canceled from the application through this Response without prejudice, waiver, or disclaimer. Applicant reserves the right to present these canceled claims, or variants thereof, in continuing applications to be filed subsequently.
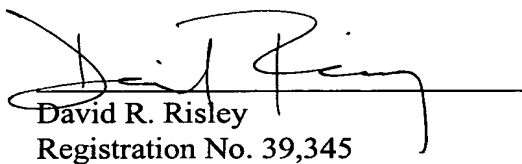
VI.   New Claims

As identified above, claims 35-37 have been added into the application through this Response. Applicant respectfully submits that these new claims describe an invention novel and unobvious in view of the prior art of record and, therefore, respectfully requests that these claims be held to be allowable.
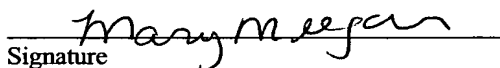
CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on
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Mary Meer
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